

44

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/645,862	HENDLER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shih-Chao Chen	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on March 31, 2005.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☒ The drawings filed on 31 March 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

*Shih-Chao Chen*  
**SHIH-CHAO CHEN**  
**PRIMARY EXAMINER**

## **DETAILED ACTION**

### ***Drawings***

1. The application having been allowed, formal drawings are required in response to this office action.
2. The drawings were received on March 31, 2005. These drawings are accepted by the Examiner.

### ***Allowable Subject Matter***

3. Claims 1-29 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 1-16 is the inclusion of the limitations of first ones of the plurality of conductive regions each having a conductive via connected to the ground plane; and the ground and the signal vias are electrically connected to the conductor segment. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 17 is the inclusion of the limitations of a conductive ground via connected between at least one of the plurality of conductive regions and extending downwardly to a bottom surface of the first dielectric layer for connection to the ground plane; and the ground and the signal vias are electrically connected to the conductor segment. It is these limitations found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

The primary reason for the allowance of claims 18-22 is the inclusion of the limitations of a conductive ground via connected between at least one of the plurality of conductive regions and the ground plane; and the ground and the signal vias are electrically connected to the conductor segment. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 23-26 is the inclusion of the limitations of a first and a second conductive ground via connected between the first and the third conductive regions and the ground plane, respectively; and the ground and the signal vias are electrically connected to the conductor segment. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claim allowable over the prior art.

The primary reason for the allowance of claim 27 is the inclusion of the limitation of at least one conductive ground via connected to the conductive plate and extending to the second surface. It is this limitation found in the claim, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

The primary reason for the allowance of claims 28-29 is the inclusion of the limitations of steps of forming at least one conductive ground via connected to a first one of the plurality of conductive regions and extending to the second surface; and the

at least one ground via and the at least one signal via are further connected to the conductive segment. It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (571) 272-1819. The examiner can normally be reached on Monday-Friday from 7 AM to 4:30 PM, First Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Shih-Chao Chen*

Shih-Chao Chen  
Primary Examiner  
Art Unit 2821

**SHIH-CHAO CHEN**  
**PRIMARY EXAMINER**

SXC  
May 10, 2005